

### REMARKS

In further response to the Office Action dated June 21, 2007, as well as the Advisory Action dated August 31, 2007, Applicants respectfully request reconsideration and withdrawal of the rejections of the claims.

All pending claims stand rejected under 35 U.S.C. §103, on the basis of the Bellegarda et al. article entitled "Exploiting Latent Semantic Information in Statistical Language Modeling," in view of the Millier et al. patent (U.S. Patent No. 5,899,995). For the reasons presented in Applicants' previous response, it is respectfully submitted that the claimed subject matter is not suggested by these references. To expedite the examination and allowance of the present application, some of the claims have been amended to further clarify the distinctions over the prior art.

As pointed out in Applicants' previous response, the Millier patent discloses a technique for displaying files in a hierarchical format that is fundamentally different from that which is disclosed and claimed in the present application. More particularly, the Millier patent is representative of the conventional view of a file system hierarchy, as represented in Figure 2A of the present application. As disclosed in the Millier patent, the user first creates the structure of the hierarchy, according to his or her preferences (column 9, lines 48-51). The user then generates a profile and constraints for each folder in the hierarchy. Thereafter, the individual files are analyzed, relative to the profiles and constraints, to place them in the appropriate folders of the defined hierarchy.

Thus, in the conventional approach disclosed in the Millier patent, the hierarchy is first defined, and the individual files are then analyzed to determine their placement within the hierarchy.

In contrast, the present application discloses an alternative technique for viewing files. In this technique, the files are first analyzed to determine their semantic content. The files are then clustered, in accordance with semantic similarities. A hierarchy is then derived from this clustering that is based upon the content of the documents.

Thus, in the semantic view described in the present application, the documents are first analyzed, and then the hierarchy is derived from the results of this analysis. In other words, the semantic view employs a different temporal sequence for the analysis of the documents and the definition of the hierarchy than that which is described in the Millier patent.

It is respectfully submitted that this distinction is clearly brought out in the claims. For example, claim 1 recites the step of mapping the files into a semantic vector space, clustering the files within that space, and "deriving a hierarchy from said clusters." The files are then displayed in a hierarchical format that is based upon the derived hierarchy. In the method of the Millier patent, the hierarchy is not derived from clustering that is based upon semantic information in the files. Rather, as noted previously, the hierarchy is created independently of any analysis of the file content, and is based solely upon user preferences. Thus, the Millier does not disclose, nor otherwise suggest, the step of deriving a hierarchy from clusters, which result from mapping the files themselves into a semantic vector space.

Claim 11 recites a graphical user interface that displays files in a virtual file system with a semantic hierarchy "that is derived from semantic similarities of said files." For reasons similar to those discussed with respect to claim 1, the Millier patent does not suggest this claimed subject matter. Specifically, it does not

disclose that a hierarchy for displaying the files is derived from semantic similarities of the files.

Claim 17 recites computer readable media having computer executable code for analyzing files to determine similarities in their content, determining a directory structure "based on determined similarities between the files," and displaying the files in a hierarchical format that is based on the determined similarities. For the reasons discussed previously, it is respectfully submitted that the Millier patent does not disclose this claimed subject matter. In the method of the Millier patent, the hierarchy is not determined on the basis of similarities between the files that is obtained from analysis of the files.

Claim 28 recites a computer system that includes, among other elements, a processor for analyzing the content of files stored in a file system, to map the files into a semantic vector space, and thereafter cluster the files within that space and "derive a hierarchy from said clusters." The claimed system further includes a user interface which displays the files in the form of the derived hierarchy. For the reasons discussed previously in connection with claim 1, the Millier patent does not disclose, nor otherwise suggest, this claimed subject matter.

Claim 38 recites a method of organizing a plurality of documents, in which the documents are mapped into a semantic vector space, and a plurality of clusters are generated based on the semantic similarities of the documents. The claim recites the further step of "organizing the plurality of *clusters* into directories in a hierarchical format" and thereafter displaying the plurality of documents in that hierarchical format. The Millier patent does not disclose that documents are first clustered, based on semantic similarities, and these clusters are then organized into

directories. Rather, as discussed previously, the directories are first defined without analysis of the documents. As a result, there is no clustering of documents based on semantic similarities. Rather, the documents are individually analyzed to determine one of the pre-defined folders into which they are to be placed.

In summary, therefore, the Millier patent discloses the conventional approach to file system organization, in which the hierarchy of the file system is first defined, and then documents are analyzed to determine where they fit within the defined hierarchy. In contrast, the present application discloses a semantic view for documents, in which the documents are first analyzed to determine their semantic similarities, and then subsequently displayed in a hierarchical format that is derived from the results of that semantic analysis. Accordingly, it is respectfully submitted that the Millier patent does not suggest the claimed subject matter to a person of ordinary skill in the art, even when it is considered in the context of the Bellegarda publication.


Reconsideration and withdrawal of the rejections, and allowance of all pending claims is respectfully requested.

Respectfully submitted,

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